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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/774,631 | 02/01/2001 | Hirotaka Ueno | 108075-00033 | 3059 |

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| EXAMINER | |
|---|---|
| PATEL, NITIN C | |
| **ART UNIT** | **PAPER NUMBER** |
| 2116 | 3 |

DATE MAILED: 12/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/774,631 | UENO, HIROTAKA | |
| | Examiner | Art Unit | |
| | Nitin C. Patel | 2185 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) 1-12 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-12 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

## DETAILED ACTION

1. Claims 1 – 12 are presented for the examination.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 – 3 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Marbot, US Patent 5,268,937.

4. As to claim 1, Marbot teaches system and method for digital transmission with determining a transfer [transmission] speed of an encoded data signal [transmission signal] including a clock signal [clock] and a data signal [data] comprising:

a. decoding [decoding is inherent to decoder] the encoded data signal [transmission signal] to generate [to restore] a decoded clock [clock] signal [col. 4, lines 43 - 50]; and

b. determining a data transfer speed [transmission speed] using the decoded clock signal [col. 3, lines 32 - 55].

5. As to claim 2, Marbot discloses the determining a data transfer [transmission] speed, and buffer [fig. 1] to store with decoded clock signal therefore, he teaches different steps of storing, and measuring in determining the speed too [fig. 1].

6. As to claim 3, Marbot discloses a counter [26, counter] for counting the number of pulses [col. 5, lines 26, fig. 2A].

### *Claim Rejections - 35 USC § 103*

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 1 – 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yarborough, Jr., US Patent 4,454,499, and further in view of Chieco et al. [hereinafter as Chieco], US Patent 5,912,928.

10. As to claims 1, 4, and 9, Yarborough, Jr. discloses an invention and method of digital transmission with digital Miller decoder with encoded data signal including a clock and a data signal [encoded Miller input, fig. 1, 3] with decoding the encoded data to generate a decoded data [34, data output] and a write clock [clock input to Accumulator 20], storing decoded signal in memory [30, Flipflop] in accordance with the write clock, determining a transfer speed [transmission rate] of the encoded data using the write, generating a read clock signal having a frequency corresponding to the determine data transfer speed [by counting the number of pulses and comparing with accumulator number and generating an output which is a control signal for the mux for determine frequency, fig. 3], reading the decoded data signal stored in memory [30]

in accordance with read clock [output of comparator 38 - 1] [col. 1, lines 36 – 67, col. 2, lines 1 – 12, col. 3, lines 1 – 67, and col. 4, lines 1 – 3, col. 5, lines 1 – 52]. However, Yarborough, Jr. does not teach encoding the read decoded data signal and read clock signal to generate an encoded data signal. In summary, Yarborough, Jr. does not teach the encoding functions for encoding of the data signal and the clock to generate an encoded data signal.

Chieco discloses invention and method of operation of a high speed data transmission encoder with encoding functionality for encoding output data with read clock to generate strobe output at data transmission speed [rate] with received data inputting to the frequency matching register array and with write and read [col. 2, lines 41 – 65, col. 3, lines 40 – 67, col. 4, lines 1 – 11, fig. 2].

It would have been an obvious to one of an ordinary skill in art at the time of invention to combine the teachings of Decoder by Yarborough, Jr. with Encoder of Chieco because both are related to the high speed transmission of data and Chieco's teachings will reduce the stage delay between DATA and STROBE [co.1, lines 56 – 57].

11. As to claims 2 - 3, 5 – 6, and 11, Yarborough, Jr. discloses the use of accumulator [20], counter [12], digital comparator [38 – 1, 38 – 2], and Flipflop [30] in decoding the encoded input to output the control signal for MUX [80] to select the determined transmission speed [as a result of comparing the number of pulses] therefore, he teaches the steps involved in it too [fig. 3].

12. As to claim 7, Yarborough, Jr. discloses generation of plurality of read clock signals [by dividing reference clock frequency as shown 74, 76, 78 in fig. 3] corresponding to a plurality of data transfer speeds using the reference clock [clock OSC output] and selection of a read clock signal [selection based on the control signal input to the MUX] corresponding to determined data

transfer speed [transmission rate] from plurality of clock signals [col. 3, lines 10 – 67, col. 5, lines 1 – 51, fig. 3].

13. As to claim 8, Yarborough teaches that encoded signal [Encoded Miller Input to edge detector, fig. 2, 3] as he discloses to decode the encoded input to generate data clock and data output signals [fig. 3].

14. As to claim 10, Yarborough, Jr. discloses a memory cell circuit [30 Flipflop] with read [output of digital comparator 38 – 1] and write [set] pointer with timer [20 accumulator], comparator [38 - 1], clock signal generator [74, 76, 78 frequency divider] connected to the determining circuit [output logic circuit] for generating a read clock signal having a frequency corresponding to the determined transfer speed [transmission rate] in accordance with the determination signal [control signal input to the MUX] [fig. 3].

15. As to claim 12, Yarborough, Jr. discloses the clock signal generator circuit [74, 76, 78 divider circuits] to generate a plurality of read clock signals corresponding to a plurality of data transfer speed [transmission rate] using a reference clock [Clock OSC] and selects [control signals select which input to be output] a read clock signal [output of MUX] corresponding to the determined data transfer speed [transmission rate] from plurality of read clock signals [output of dividers as input to MUX] in accordance with the determination signal [col. 5, lines 8 – 51, fig. 3].

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nitin C. Patel whose telephone number is 703-305-3994. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas C. Lee can be reached on 703-305-9717. The fax phone number for the organization where this application or proceeding is assigned is 703-746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Nitin C. Patel
December 11, 2003

THOMAS LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100